

STATEMENT OF WORK

1.0 Objective

The contractor shall provide services to assist the Naval Surface Warfare Center, Carderock Division (NSWCCD) Machinery Research and Development Directorate, Machinery Research Department, Advanced Auxiliary Branch (Code 983) in the evaluation of heating, ventilation, air conditioning, refrigeration, chilled water, seawater, air and other distributed fluid systems.

The contractor shall perform task assignments within the scope of work described in the following paragraphs. The scope of work will include research, development, analysis and evaluation of naval vessel auxiliary systems.

2.0 Scope of Work

The principal performer of below tasks shall have a master or doctorate degree in mechanical engineering as well as being an expert in the research and development of Navy's heating, ventilation, air conditioning, refrigeration and chilled water systems.

2.1 The contractor shall perform research, development test and evaluation (RDT&E) relevant to the CFC Elimination Program/Advanced Auxiliary Branch including design evaluations, performance evaluations, analyzing test data and analytical/engineering support for the development, fabrication, acquisition and demonstration of new mechanical/electrical devices. The contractor shall assist in the preparation of the technical reports. One Technical report discussing the results of the bellows shafts seal investigation on the CVN and DDG air conditioning plants is expected. The contractor shall assist in the preparation of proposal and issue papers to exploit future research and development initiatives. It is anticipated that this effort will require the services of a principle engineer for 500 hours in an eleven-month period.

3.0 Deliverables

3.1 **Contractor's Progress, Status & Management Report** (CDRL A001) The contractor shall provide a monthly progress report which shall briefly describe the work performed during each reporting period together with significant results thereof. This report shall describe any problems encountered and propose solutions for their resolution. The report shall further provide the current technical and financial status of the effort, and contain a brief outline of the work envisioned for the ensuing reporting period. Informal appendices shall be included as necessary or required in the scope of work. Expenditures and projections shall be in graphic form.

3.2 **Ship-Class Type Technical Performance Report**. (CDRL A002) The contractor shall review contractor-generated and NSWCCD/NAVSEA provided data and information, analyze acquired information relative to the specified objectives, and prepare a comprehensive summary report describing the results obtained from the CFC Replacement research and development and Climate Control Branch programs as identified in the scope of work above. Clear original graphics shall be prepared to illustrate any ideas and concepts presented in the report. Reports shall be prepared using ANSI/NISO Z39.18-1995, "Scientific and Technical Reports - Elements, Organization and Design" and the conclusions and recommendations shall support consideration and incorporation of the RDT&E initiatives and products

into the Navy programming, planning, and budgeting process for shipboard implementation. For report numbering, the contractor shall use ANSI/NISO Z39.23-1997, "Standard Technical Report Number Format and Creation".

4.0 Government Furnished Information/Material: The Government will provide the contractor with on-site access and the following information/material required for the successful accomplishment of the work specified above.

Item	Days after contract
Mechanical design information on Air Conditioning and Refrigeration Plant components and systems.	As Required
Information concerning the LCM & RDT&E objectives of the CFC/Halon Elimination Program.	As Required
Any Government-developed information necessary for report generation.	As Required

Plans, drawings, specifications, designs, photographs, and any other engineering and manufacturing information furnished by the Government shall remain Government property and shall be reproduced only as authorized in writing by the Government, shall be used for performance of the work under this delivery order only, and shall be returned to the Government upon request. Such a request may be made during the subject contract performance or at termination or completion of the subject contract, and the contractor shall thereafter make no further use of any information derived there from without prior written consent of the Government.

5.0 Performance and Deliveries

5.1 Period of Performance. The period of this delivery order for this contract is for eleven months from the effective date of the resulting order. Additional specific information is provided in the attached Contract Data Requirements List (CDRL) exhibit.

5.2 Place of Performance. Report generation will be performed at the contractor's facilities.

5.3 Travel Requirements. No travel requirements are expected during the performance.

5.4 Place of Delivery. The articles to be provided here under shall be delivered, all transportation charges paid by the contractor, to:

Matthew Frank, Code 983
NSWCCD-SSES
5001 S BROAD ST
PHILADELPHIA PA 19112-5083

5.5 Points of Contact. The Technical Point of Contact (TPOC) for this delivery order is Mr. Matthew Frank (215-897-7024).

ENCLOSURE 1

5.6 Security Requirements. All work conducted under this delivery order will be UNCLASSIFIED. The contractor may be required to have access to proprietary information from original equipment contractors for which the Organizational Conflict of Interest clause of the basic contract applies.

5.7 Services Information. The contractor shall not exercise personal judgment on behalf of the Government. The Government will not assign tasks or prepare work schedules, but shall require the contractor meet delivery schedules established in this delivery order. The Government will not exercise control or direct day to day contractor performance.

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)					<i>Form Approved</i> <i>OMB No. 0704-0188</i>							
Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. Listed in Block E.												
A. CONTRACT LINE ITEM NO. <i>CLIN 0002</i>			B. EXHIBIT <i>A</i>		C. CATEGORY TDP _____ TM _____ OTHER <i>N/A</i>							
D. SYSTEM/ITEM <i>Climate Control</i>			E. CONTRACT NO.		F. CONTRACTOR <i>Severn Consultants</i>							
1. DATA ITEM NO. <i>A001</i>		2. TITLE OF DATA <i>Contractor's Progress, Status and Management Reports</i>			3. SUBTITLE							
4. AUTHORITY (Data Acquisition Document No.) <i>DI-MGMT-80227</i>			5. CONTRACT REFERENCE <i>SOW PARA. 3.1</i>		6. REQUIRING OFFICE <i>NSWCCD Code 983</i>							
7. DD 250 REQ <i>LT</i>	9. DIST STATEMENT REQUIRED	10. FREQUENCY <i>Monthly</i>	12. DATE OF FIRST SUBMISSION <i>10 DARP</i>		14. DISTRIBUTION							
8. APP CODE		11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION		a. ADDRESSEE							
16. REMARKS					b. COPIES							
					Draft Final Reg Repro							
					<i>NSWCCD</i>							
					<i>Code 983</i>				<i>0</i>	<i>1</i>	<i>0</i>	
					15. TOTAL					<i>0</i>	<i>1</i>	<i>0</i>
					G. PREPARED BY <i>Matthew Frank (Code 822)</i>			H. DATE <i>12/11/2003</i>		I. APPROVED BY		J. DATE

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

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D. SYSTEM/ITEM <i>Climate Control</i>			E. CONTRACT NO.		F. CONTRACTOR <i>Severn Consultants</i>				
1. DATA ITEM NO. <i>A002</i>		2. TITLE OF DATA <i>Technical Report-Study / Services</i>			3. SUBTITLE <i>Ship-Class Type Technical Performance Report</i>				
4. AUTHORITY (Data Acquisition Document No.) <i>DI-MISC-80508</i>			5. CONTRACT REFERENCE <i>SOW Para. 3.2</i>		6. REQUIRING OFFICE <i>NSWCCD Code 983</i>				
7. DD 250 REQ <i>LT</i>	9. DIST REQUIRED	10. FREQUENCY <i>As Req'd</i>	12. DATE OF FIRST SUBMISSION <i>As Required</i>		14. DISTRIBUTION				
8. APP CODE		11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION <i>As Required</i>		a. ADDRESSEE		b. COPIES		
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					<i>Code 983</i>		<i>1</i>	<i>15</i>	<i>1</i>
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